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# United States Department of Agriculture,

## BUREAU OF CHEMISTRY.

~~AGRICULTURE.~~  
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### FOOD DEFINITIONS AND STANDARDS.

[Prepared by the Committee on Food Standards, Association of Official Agricultural Chemists.]  
[Subject to revision.]

#### I. ANIMAL PRODUCTS.

##### A. MEATS AND THE PRINCIPAL MEAT PRODUCTS.

###### a. MEATS.

###### DEFINITIONS.

1. *Meat* is any sound, dressed, and properly prepared edible part of animals in good health at the time of slaughter. The term "animals," as herein used, includes not only mammals but fish, fowl, crustaceans, molluscs, and all other animals used as food.
2. *Fresh meat* is meat from animals recently slaughtered or preserved only by refrigeration.
3. *Salted, pickled, and smoked meats* are unmixed meats preserved by salt, sugar, vinegar, spices, or smoke, singly or in combination, whether in bulk or in packages.

###### STANDARD.

*Standard meat, fresh meat, and salted, pickled, and smoked meats* are such as conform respectively to the foregoing definitions.

###### b. MANUFACTURED MEATS.

###### DEFINITION.

1. *Manufactured meats* are meats not included in definitions 2 and 3, whether simple or mixed, whole or comminuted, in bulk or packages, with or without the addition of salt, sugar, vinegar, spices, smoke, oils, or rendered fat.

###### STANDARD.

*Standard manufactured meats* conform to the foregoing definition. If they bear names descriptive of composition they correspond thereto; if force or flavoring meats are used the quantity thereof is made known. If substances other than those named in the definition are present the character and quantity thereof are made known.

###### c. MEAT EXTRACTS, MEAT PEPTONES, ETC. (Schedule in preparation.)

###### d. LARD.

###### DEFINITIONS.

1. *Lard* is the rendered fresh fat from slaughtered, healthy hogs.
2. *Leaf lard* is the lard rendered in open kettles at moderately high temperatures from the internal fat of the abdomen of the hog, excluding that adherent to the intestines.

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## STANDARD.

*Standard lard* and *standard leaf lard* are lards containing not more than one (1) per cent of substances not fat, necessarily incorporated therewith in the process of rendering.

## DEFINITION.

3. *Neutral lard* is the lard rendered at low temperatures from the internal fat of the abdomen of the hog.

## B. MILK AND ITS PRODUCTS.

## a. MILKS.

## DEFINITION.

1. *Milk (whole milk)* is the lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and five days after calving.

## STANDARD.

*Standard milk* is milk containing not less than three and one-quarter (3.25) per cent of milk-fat and eight and one-quarter (8.25) per cent of solids not fat, and which has an acidity equivalent to not more than two-tenths (0.2) per cent of lactic acid.

## DEFINITIONS.

2. *Blended milk* is milk modified in its composition so as to have a definite and stated percentage of one or more of its constituents.

3. *Skim milk* is milk from which a part or all of the cream has been removed.

4. *Buttermilk* is the product that remains when butter is removed from milk or cream in the process of churning.

5. *Pasteurized milk* is milk that has been heated sufficiently to kill most of the active organisms present and to retard the development of their spores without changing the taste or flavor of the milk.

6. *Sterilized milk* is milk that has been heated at the temperature of boiling water or higher for a length of time sufficient to kill all organisms present.

7. *Condensed milk* is milk from which a considerable portion of water has been evaporated with or without the addition of sugar (sucrose).

## STANDARD.

*Standard condensed milk* is condensed milk containing at least thirty-six (36) per cent of milk solids, of which not less than one-fourth is milk fat and not more than fifty (50) per cent of the total solids is added sugar (sucrose).

## b. MILK FAT OR BUTTER FAT.

## DEFINITION.

1. *Milk fat or butter fat* is the fat of milk.

## STANDARD.

*Standard milk fat or butter fat* has a Reichert-Meissl number not less than twenty-four (24) and a specific gravity not less than 0.905 (40° C. / 40° C.)

## c. CREAM.

## DEFINITION.

1. *Cream* is that portion of milk, rich in butter fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force.

## STANDARD.

*Standard cream* is cream containing not less than eighteen (18) per cent of milk fat.

## d. BUTTER.

## DEFINITION.

1. *Butter* is the product obtained by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt.

## STANDARD.

*Standard butter* is butter containing not less than eighty-two and five-tenths (82.5) per cent of butter fat.

## DEFINITION.

2. *Renovated or process butter* is the product obtained by melting butter and reworking, without the addition or use of chemicals or any substances except milk, cream, or salt.

## STANDARD.

*Standard renovated or process butter* is renovated or process butter containing not more than sixteen (16) per cent of water and at least eighty-two and five-tenths (82.5) per cent of butter fat.

## e. CHEESE.

## DEFINITIONS.

1. *Cheese* is the solid product obtained by coagulating the casein of milk by means of rennet or acids with or without the addition of ripening ferments and seasoning.

2. *Whole-milk or full-cream cheese* is cheese made from milk from which no portion of the fat has been removed.

3. *Skim-milk cheese* is cheese made from milk from which any portion of the fat has been removed.

4. *Cream cheese* is cheese made from whole milk to which cream has been added.

## STANDARD.

*Standard whole-milk cheese, full-cream cheese, or cream cheese* is cheese containing, in the water-free substance, not less than forty-eight (48) per cent of butter fat.

## f. MISCELLANEOUS MILK PRODUCTS.

## DEFINITION.

1. *Ice cream* is a product made from cream or milk and cream, with or without eggs, fruits, nuts, and harmless flavoring and coloring matters, sweetened with sugar (sucrose) and frozen into a mass of fine, granular texture.

## STANDARD.

*Standard ice cream* is ice cream containing not less than six (6) per cent of milk fat.

## DEFINITIONS.

2. *Whey* is the product remaining after the removal of fat and casein from milk in the process of cheese making.

3. *Kumiss* is mare's or cow's milk, with or without the addition of sugar (sucrose), which has undergone alcoholic fermentation.

## II. VEGETABLE PRODUCTS.

A. GRAIN PRODUCTS. (Schedule in preparation).

B. FRUITS AND VEGETABLES. (Schedule in preparation).

C. SUGARS AND RELATED SUBSTANCES.

a. SUGAR AND SUGAR PRODUCTS.

### DEFINITION.

1. *Sugar* is the product chemically known as sucrose (saccharose) chiefly obtained from sugar cane, sugar beets, sorghum, maple, or palm.

### STANDARD.

*Standard sugar* is white sugar containing at least ninety-nine and five-tenths (99.5) per cent of sucrose and without any added substance.

### DEFINITIONS.

2. *Granulated, loaf, cut, milled, and powdered sugars* are different forms of standard sugars.

3. *Maple sugar* is the solid product resulting from the evaporation of maple sap.

4. *Massecuite, melada, mush sugar, and concrete* are products obtained by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semisolid consistence in which the sugar chiefly exists in a crystalline state.

5. *Molasses* is the product left after separating the sugar from massecuite, melada, mush sugar, or concrete.

### STANDARD.

*Standard molasses* is molasses containing not more than twenty-five (25) per cent of water nor more than five (5) per cent of ash.

b. SIRUPS.

### DEFINITIONS.

1. *Sirup* is the product obtained by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar.

2. *Sugar-cane sirup* is a sirup obtained by the evaporation of the juice of the sugar cane or by the solution of sugar-cane concrete.

3. *Sorghum sirup* is a sirup obtained by the evaporation of sorghum juice or by the solution of sorghum concrete.

4. *Maple sirup* is a sirup obtained by the evaporation of maple sap or by the solution of maple concrete.

5. *Sugar sirup* is a product obtained by dissolving sugar to the consistence of a sirup.

### STANDARD.

*Standard sirup* is a sirup containing not more than thirty (30) per cent of water nor more than two and five-tenths (2.5) per cent of ash.

c. GLUCOSE PRODUCTS.

### DEFINITION.

1. *Starch sugar or grape sugar* is the solid product obtained by hydrolyzing starch or a starch-containing substance until the greater part of the starch is

converted into dextrose. Starch sugar or grape sugar appears in commerce in two forms, anhydrous and hydrous. In the former, the sugar is crystallized without water of crystallization; in the latter, it is crystallized with water of crystallization. The hydrous varieties are commonly known as 70 and 80 sugars; 70 sugar is also known as brewers' sugar, and 80 sugar as climax or acme sugar.

#### STANDARDS.

(a) *Standard 70 sugar or brewers' sugar* is hydrous starch sugar containing not less than seventy (70) per cent of dextrose and not more than six-tenths (0.6) per cent of ash.

(b) *Standard 80 sugar, climax or acme sugar*, is hydrous starch sugar containing not less than eighty (80) per cent of dextrose and not more than one and one-half (1.5) per cent of ash.

(c) *Standard anhydrous grape sugar* is anhydrous grape sugar containing not less than ninety-six (96) per cent of dextrose without water of crystallization and not more than six-tenths (0.6) per cent of ash.

The ash of these standard products consists almost entirely of chlorids and sulphates of lime or soda. The standard products are free from deleterious substances.

#### DEFINITION.

2. *Glucose, mixers' glucose, confectioners' glucose, or corn sirup* is a thick sirupy substance obtained by incompletely hydrolyzing starch or a starch-containing substance, decolorizing and evaporating the product. It is found in various degrees of concentration, ranging from forty-one (41) to forty-five (45) degrees Baumé.

#### STANDARD.

*Standard glucose, mixers' glucose, confectioners' glucose, or corn sirup* is colorless glucose, varying in density between forty-one (41) and forty-five (45) degrees Baumé, at a temperature of one hundred (100) degrees F. (37.7° C.). It conforms in density, within these limits, to the degree Baumé it is claimed to show, and for a density of forty-one (41) degrees Baumé contains not more than twenty-one (21) per cent of water and for a density of forty-five (45) degrees not more than fourteen (14) per cent. It contains not more than one (1) per cent of ash consisting chiefly of chlorids and sulphates of lime or soda.

#### d. CANDY.

##### DEFINITION.

1. *Candy* is a product prepared from a saccharine substance or substances, with or without the addition of harmless coloring, flavoring, or filling materials.

#### STANDARD.

2. *Standard candy* is candy containing no terra alba, barytes, talc, chrome yellow, or other mineral substances or poisonous colors or flavors or other ingredients injurious to health.

#### e. HONEY. (Schedule in preparation.)

#### D. CONDIMENTS (except vinegar).

##### a. SPICES.

##### GENERAL DEFINITION.

1. *Spices* are aromatic vegetable substances used for the seasoning of food.

## GENERAL STANDARD.

*Standard spices* are sound spices, true to name, from which no portion of any volatile oil or other flavoring principle has been removed.

## DEFINITION.

2. *Allspice or pimento* is the dried fruit of *Pimenta officinalis* Lindl.

## STANDARD.

*Standard allspice* is allspice containing not less than eight (8) per cent of quercitannic acid;<sup>1</sup> not more than six (6) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than twenty-five (25) per cent of crude fiber.

## DEFINITIONS.

3. *Anise* is the fruit of *Pimpinella anisum* L.
4. *Bay leaf* is the dried leaves of *Laurus nobilis* L.
5. *Black pepper* is the dried immature berries of *Piper nigrum* L.

## STANDARD.

*Standard black pepper* is black pepper containing not less than six (6) per cent of nonvolatile ether extract; not less than twenty-two (22) per cent of starch by the diastase method; not less than twenty-eight (28) per cent of starch by direct inversion;<sup>2</sup> not more than six and five-tenths (6.5) per cent of total ash; not more than two (2) per cent of ash insoluble in hydrochloric acid, and not more than fifteen (15) per cent of crude fiber. One hundred parts of the nonvolatile ether extract contain not less than three and one-quarter (3.25) parts of nitrogen.

The admixture of pepper shells, pepper dust, and other pepper by-products with pepper is an adulteration.

## DEFINITIONS.

6. *Capers* are the flower buds of *Capparis spinosa* L.
7. *Caraway* is the fruit of *Carum carvi* L.
8. *Cayenne pepper, cayenne, or red pepper* is the dried, ripe fruit of *Capsicum fastigiatum* D. C., *Capsicum frutescens* L., *Capsicum baccatum* L., or some other small-fruited species of *Capsicum*.

## STANDARD.

*Standard cayenne pepper* is cayenne pepper containing not less than fifteen (15) per cent of nonvolatile ether extract; not more than six and five-tenths (6.5) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid; not more than one and five-tenths (1.5) per cent of starch by the diastase method, and not more than twenty-eight (28) per cent of crude fiber.

## DEFINITIONS.

9. *Celery seed* is the dried seed of *Apium graveolens* L.
10. *Cinnamon* is the dried bark of any species of the genus *Cinnamomum* from which the outer layers may or may not have been removed.
11. *True cinnamon* is the dried inner bark of *Cinnamomum zeylanicum* Breyne.
12. *Cassia* is the dried bark of various species of *Cinnamomum*, other than

<sup>1</sup> Calculated from the total oxygen absorbed by the aqueous extract.

<sup>2</sup> Copper-reducing matters by direct inversion, calculated as starch.

*Cinnamomum zeylanicum*, from which the outer layers may or may not have been removed.

13. *Cassia buds* are the dried immature fruit of a species of *Cinnamomum*.
14. *Ground cinnamon or ground cassia* is a powder consisting of cinnamon, cassia or cassia buds, or a mixture of these spices.

STANDARD.

*Standard cinnamon or cassia* is cinnamon or cassia containing not more than eight (8) per cent of total ash and not more than two (2) per cent of sand.

DEFINITION.

15. *Cloves* are the dried flower buds of *Jambosa caryophyllus* Ndz. (*Caryophyllus aromaticus* L.) which contain not more than five (5) per cent of clove stems.

STANDARD.

*Standard cloves* are cloves containing not less than ten (10) per cent of volatile ether; not less than (12) per cent of quercitannic acid;<sup>1</sup> not more than eight (8) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.

DEFINITIONS.

16. *Coriander* is the dried fruit of *Coriandrum sativum* L.
17. *Cumin seed* is the fruit of *Cuminum cyminum* L.
18. *Dill seed* is the fruit of *Peucedanum graveolens* Hiern.
19. *Fennel* is the fruit of *Foeniculum vulgare* Gaertn.
20. *Ginger* is the washed and dried, or decorticated and dried, rhizome of *Zingiber officinale* Roscoe.

STANDARD.

*Standard ginger* is ground or whole ginger containing not less than forty-two (42) per cent of starch by the diastase method; not less than forty-six (46) per cent of starch by direct inversion;<sup>2</sup> not more than eight (8) per cent of crude fiber; not more than eight (8) per cent of total ash; not more than one (1) per cent of lime, and not more than three (3) per cent of ash insoluble in hydrochloric acid.

DEFINITION.

21. *Limed or bleached ginger* is whole ginger coated with carbonate of lime.

STANDARD.

*Standard limed or bleached ginger* is limed or bleached ginger containing not more than ten (10) per cent of ash; not more than four (4) per cent of carbonate of lime; and conforming in other respects to standard ginger.

DEFINITION.

22. *Horse-radish* is the root of *Cochlearia armoracia* L.

STANDARD.

*Standard grated or ground horse-radish* may be mixed with vinegar, but contains no other foreign materials.

DEFINITIONS.

23. *Long pepper* is the dried fruit of *Piper longum* L.
24. *Mace* is the dried arillus of *Myristica fragrans* Houttuyn.

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<sup>1</sup> Calculated from the total oxygen absorbed by the aqueous extract.

<sup>2</sup> Copper-reducing matters by direct inversion calculated as starch.

## STANDARD.

*Standard mace* is mace containing not less than twenty (20) per cent of non-volatile ether extract; not more than thirty (30) per cent of nonvolatile ether extract; not more than three (3) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.

## DEFINITIONS.

25. *Macassar* or *Papua mace* is the dried arillus of *Myristica argentea* Warb.
26. *Bombay mace* is the dried arillus of *Myristica malabarica* Lamark.
27. *Marjoram* is the leaves, flowers, and branches of *Origanum majorana* L.
28. *Mustard seed* is the seed of *Sinapis alba* L. (white mustard), *Brassica nigra* Koch. (black or brown mustard), or *Sinapis juncea* Mayer (Sarepta mustard).
29. *Ground mustard* is a powder made solely from mustard seed, with or without the removal of the hulls and a portion of the fixed oil, but without the addition of any other substance.

## STANDARD.

*Standard ground mustard* is mustard containing not more than two and five-tenths (2.5) per cent of starch by the diastase method and not more than eight (8) per cent of total ash.

## DEFINITION.

30. *Nutmeg* is the dried seed of *Myristica fragrans* Houttuyn, deprived of its testa and with or without a thin coating of lime.

## STANDARD.

*Standard nutmegs*, ground or unground, are nutmegs containing not less than twenty-five (25) per cent of nonvolatile ether extract; not more than five (5) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.

## DEFINITIONS.

31. *Macassar, Papua, male, or long nutmeg* is the dried seed of *Myristica argentea* Warb. deprived of its testa.
32. *Paprica* is the dried ripe fruit of *Capsicum annuum* L., *Capsicum longum* D. C., or some other large-fruited species of *Capsicum*.
33. *Saffron* is the dried stigmas of *Crocus sativus* L.
34. *Sage* is the leaves of *Salvia officinalis* L.
35. *Savory, or summer savory* is the leaves, blossoms, and branches of *Satureja hortensis* L.
36. *Thyme* is the leaves and ends of blooming branches of *Thymus vulgaris* L.
37. *White pepper* is the dried mature berries of *Piper nigrum* L., from which the outer coating, or the outer and inner coatings, have been removed.

## STANDARD.

*Standard white pepper* is white pepper containing not less than six (6) per cent of nonvolatile ether extract; not less than fifty-three (53) per cent of starch by the diastase method; not less than forty (40) per cent of starch by direct inversion;<sup>1</sup> not more than three (3) per cent of total ash; not more than five-tenths (0.5) of ash insoluble in hydrochloric acid, and not more than five (5) per cent of crude fiber. One hundred parts of the nonvolatile ether extract contain not less than four (4) parts of nitrogen.

<sup>1</sup> Copper-reducing matters by direct inversion, calculated as starch.

b. FRUIT EXTRACTS. (Schedule in preparation.)

c. SALAD OILS. (Schedule in preparation.)

d. SALT. (Schedule in preparation.)

E. BEVERAGES (and vinegar).

a. TEA. (Schedule in preparation.)

b. COFFEE. (Schedule in preparation.)

c. COCOA AND COCOA PRODUCTS.

(The following definitions and standards do not apply to cocoa products used exclusively as candy.)

DEFINITIONS.

1. *Cocoa beans* are the seeds of the cacao tree, *Theobroma cacao* L.

2. *Cocoa nibs* or *cracked cocoa* is the roasted, broken cocoa bean freed from its shell or husk.

3. *Cocoa, breakfast cocoa, or powdered cocoa* is cocoa nibs, with or without the germ, deprived of a portion of its fat and finely pulverized.

STANDARD.

*Standard cocoa* is cocoa containing not less than twenty (20) per cent of cocoa fat, and percentages of ash, crude fiber, and starch corresponding to those in chocolate after correction for fat removed.

DEFINITIONS.

4. *Dutch process cocoa* is cocoa prepared with the use of fixed alkalies.

5. *Sweet or sweetened cocoa* is cocoa mixed with sugar (sucrose).

STANDARD.

*Standard sweet cocoa* is sweet cocoa containing not more than sixty (60) per cent of sugar (sucrose), and in the sugar- and fat-free residue no higher percentage of either ash, crude fiber or starch than is found in the sugar- and fat-free residue of plain chocolate.

DEFINITION.

6. *Chocolate, plain or bitter*, is the solid or plastic mass obtained by grinding cocoa nibs without the removal of fat or other constituents except the germ.

STANDARD.

*Standard chocolate* is chocolate containing not more than three and seventy-five hundredths (3.75) per cent of ash, three (3) per cent of crude fiber, and nine (9) per cent of starch, nor less than forty-eight (48) per cent of cocoa fat.

DEFINITION.

7. *Sweet chocolate* is plain chocolate mixed with sugar (sucrose), with or without the addition of cocoa butter, spices, or other flavoring materials.

STANDARD.

*Standard sweet chocolate* is sweet chocolate containing not more than sixty (60) per cent of sugar (sucrose), and in the sugar- and fat-free residue no higher percentage of either ash, fiber, or starch than is found in the sugar- and fat-free residue of plain chocolate.

- d. FRUIT JUICES—FRESH, SWEET, AND FERMENTED. (In preparation.)
  - e. VINEGAR. (In preparation.)
  - f. MEAD, ROOT BEER, ETC.
  - g. MALT LIQUORS. (In preparation.)
  - h. SPIRITUOUS LIQUORS. (In preparation.)
  - i. CARBONATED WATERS, ETC.

F. PRESERVATIVES AND COLORING MATTERS. (In preparation.)

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